# PUBLIC PROGRAM PARTICIPATION OF REFUGEES IN MARYLAND*

***The quantitative component of the project "The Economic Integration of Refugees in Maryland"***

by

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## Summary

Using administrative data from both the Maryland Office for New Americans (MONA) and the Maryland Department of Human Services (MDHS), this study examines the trends and group differences in refugees' participation in public programs. Because demographic and socioeconomic characteristics determine the use of public programs, the trends and groups differences can be adjusted by controlling for demographic and socioeconomic characteristics. Our primary objectives are to understand the observed and adjusted trends by arrival cohort and the observed and adjusted group differences by country or region of origin. We consider three analytic dimensions of program participation—participation rate, duration of participation, and waiting time (elapsed time from arrival to taking up benefits). The public programs addressed in this study are of two major types—public programs addressing refugees and welfare programs addressing the poor population in the U.S. This study also attempts to develop a method to use the two sources of administrative data in combination in order to provide a comprehensive view of refugees' participation in both refugee program and welfare programs. We undertake the analysis in three steps.

In the first step, we focus on refugees' participation in refugee programs during the period of 1980 to 1998, using the MONA data. The major findings include:

- The literature on immigrants' welfare use has documented that later arrival cohorts of immigrants are significantly more likely to use welfare. Our study of both the observed trends and adjusted trends shows that refugees' use of refugee programs in Maryland does not follow such a trend.

- The decline of participation duration in cash assistance reflects the reduction in time limits set by the federal government. There is also a decline in the duration of participation in employment service because of the requirement of training service participation by cash assistant recipients. The gap between the longer duration of employment service and the shorter duration of cash assistance shrinks over time, implying a quicker placement of refugees in employment.

- The literature has documented the problem of welfare dependency among refugees. Our study provides strong evidence that refugees in Maryland as a whole do not exhaust public assistance and there is little sign of dependency on public assistance from the refugee programs.

- The shorter waiting time and the shorter duration of program use across arrival cohorts provide indirect evidence for Maryland refugees achieving quicker self-sufficiency. The shorter waiting time may also reflect that the agencies implementing refugee programs have developed greater efficiency and outreach capacity.

- Because employment service aims at labor market attachment and self-sufficiency while cash assistance addresses immediate relief, the longer duration of employment service than that of

cash assistance indicates the stronger orientation toward self-sufficiency among refugees as a whole in Maryland.

- Immediate cash assistance and quick labor market attachment are the two survival strategies among African, Cambodian, Laotian, and Vietnamese refugees, given their lower educational levels and lower development levels of their origin countries. In contrast, given their higher education and greater voluntary organization funding, ex-Soviet refugees focus on investing in human capital in the form of English proficiency to increase their readiness for jobs that match their education and expertise.

- The observed rate of participation in cash assistance for Cambodian and Laotian refugees is the highest but their rate of participation in employment service is the second highest. The adjusted rates after controlling for arrival cohort and socioeconomic characteristics remain the same. This relatively heavier reliance on cash assistance among Cambodian and Laotian refugees than their use of employment service suggests a need to strengthen their labor market attachment.

- Cambodian and Laotian refugees exhibit the longest duration of program use. Because these refugees came from countries with low development and urbanization, the state should anticipate their greater barriers to adjustment to the U.S. society and their special need for longer use of refugee programs.

- The data show that it takes a longer time for Cambodian and Laotian refugees to start to use employment and language service than other participating refugees from other groups. This suggests a need for modification in MONA and its agencies' outreach and implementation of programs to address the barriers facing these two groups.

- The longer duration of cash assistance among Cambodian and Laotian refugees together with their relatively quicker exit from the employment service calls for new approaches to increase the job readiness of this group of refugees. The low duration of use of the employment service among ex-Soviet refugees may reflect that the employment service does not fit the needs for ex-Soviet refugees.

In the second step, we analyze the group differences in immigrants' participation in welfare programs during August 1998 and October 1999, using the MDHS data. The welfare programs included in the MDHS data include Aid to Families with Dependent Children (AFDC), Food Stamps, and General Assistance. Provision of MDHS data covering the same period (1980-1998) as the MONA data and including important welfare programs such as Supplemental Security Income (SSI) and Medicaid lacking in the current MDHS data would enable a more thorough analysis. We have two major finding from this step:

- The heavier AFDC and Food Stamps use among Cambodian and Laotian immigrants arouses concern over their eventual transition to self-sufficiency. The patterns in waiting time and duration of AFDC and FS deepen the welfare dependency problem of Cambodian and Laotian immigrants. This pattern supports an emphasis on human capital investment for this group of immigrants.

- The welfare use pattern of ex-Soviet immigrants supports the strengthening of welfare programs like Food Stamps to address their immediate material hardship.

In the third step, we attempt to describe the group difference in refugees' participation in welfare programs, using both MONA and MDHS data. Because of the short time period covered by the MDHS data, our results are tentative. We will need additional MDHS data covering the same time period as the MONA data cover, to draw useful conclusions.

## PUBLIC PROGRAM PARTICIPATION OF REFUGEES IN MARYLAND

## INTRODUCTION

In 1951, the United Nation defined the term "refugee" as a person who "owing to a well founded fear of persecution for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside the country of his nationality and is unable or, owing to such fear, is unwilling to avail himself of that country." First time in the U.S. history the Refugee Act of 1980 established a federal system of active reception of refugees. It established the first systematic procedures for refugee admission. It removed refugees from the preference system established in the Immigration and Nationalization Act Amendments of 1965 for visa categories. And it began a program for refugee resettlement. From the mid-1970s, the geographic sending areas of refugees have concentrated in South-East Asia, Near East and South Asia, former Soviet Union, and Africa.

Among the United States, Maryland has one of the largest percentage of foreign-born population and largest growth of foreign-born population between 1990 and 1998 (Maryland Office for New Americans 2000). Refugees resettled in Maryland primarily came from Vietnam, the former Soviet Union, Cambodia, Laos, and Africa. This study focuses on the refugee population and their public program participation.

The distinction between refugees and immigrants lies in the active vs. passive reception of the U.S. government (Portes and Rumbout 1996) and particular social welfare policies addressing refugees (Hein 1993). Two types of policies may have consequences for refugees' greater use of public programs. First immigrants are ineligible for welfare programs targeting the general population for five years after their arrival whereas refugees are immediately eligible. The Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA) has bared

non-citizen immigrants who have been in the U.S. for more than five years from some federal welfare programs but refugees are not subject to these restrictions. Second, the programs for refugee resettlement target refugees only. These include refugee cash and medical assistance, social services like language and job training programs, and a per-capita grant to voluntary organizations that sponsor refugees (Hein 1992). The greater access to public aid and social services creates a temporary alternative for refugees to labor market earnings. However, a short-length participation soon after arrival should mean a quick transition to self-sufficiency.

The Maryland Office for New Americans (MONA) is the state authority to interpret, manage and implement the federal programs for refugee resettlement, which are solely funded by the federal government. The major programs include Refugee Cash Assistance, Refugee Medical Assistance, employment service, English as Second Language training (ESL), and vocational English training. We identify three aspects of program participation—the usage rate, the waiting time from arrival to taking up benefits, and the duration of participation. One objective of this study is to characterize the trend of usage of these programs from 1980 to 1998 by arrival cohorts and the group difference in the usage by country or region of origin. Using the administrative data from MONA, we examine the observed trend and group difference and the adjusted trend and group differences after controlling for demographic and socio-economic determinants of usage.

The Maryland Department of Human Resources (MDHS) manages and implements welfare programs, which are jointly funded by the federal and state governments. The major programs include Aid to Families with Dependent Children (AFDC), Supplemental Security Income (SSI), Food Stamps, Medicaid, and General Assistance. The available administrative data from MDHS, however, only include limited public programs such as AFDC, Food Stamps and General Assistance and only cover 15 months from August 1998 to October 1999. The second

objective of this study is to characterize immigrants' participation rate, the waiting time from arrival to taking up benefit, and the duration of recipiency by country or region of origin, using the administrative data on immigrants from the MDHS. Because of the short period covered in the data, we cannot examine the trend. However, we can examine the observed group differences as well as the adjusted differences net of limited demographic characteristics available in the MDHS data.

A third objective of the study is to understand the participation patterns of both the programs for refugees and the welfare programs for the general population. To this end, we exploit the availability of both MONA data and MDHS data by merging them into one dataset. Restricted to refugees who ever participated in the refugee programs, we should be able to study refugees' usage of both types of programs and provide a more comprehensive view on refugees' program participation and self-sufficiency. At this stage, because of the limitation in the MDHS data (its short period and few public programs), our task focus on developing the method and evaluate the data need for a thorough examination in the future.

## PARTICIPATION IN REFUGEE PROGRAMS

The analysis of participation in refugee program is based on the MONA dataset. The MONA dataset contains records of individual refugees who ever participated in one of the refugee programs from 1980 to 1998. If an individual has participated multiple programs or participated a program in multiple times, there are multiple records for this individual. We transform the data into a format that contains one record per individual by combining information from multiple records. For example, for those who have two records reporting consecutive use of Refugee Cash Assistance, we combine the duration of the two records. Another example is that if a person used

Refugee Cash Assistance earlier and Refugee Medical Assistance later, there are two records for this person. We combined the two pieces of information into one record. The resulting data then represent refugees arrived between 1980 and 1998 who used at least one of the refugee programs in Maryland. The total number of these individuals is 15,812. The unit of analysis is the individual and the dataset does not include clear identification for household or family members. Because of the restriction to refugees who ever participated in at least one refugee program and the unit of analysis being individual, the patterns described in this study should not be compared with those using national representative sample or national population and those using household as the unit of analysis. Findings from this analysis refer to the refugee population in Maryland who use refugee programs and may be generalized to refugees in the U.S. who use refugee programs.

We define three aspects of program participation. The usage rate is the proportion of all refugees arrived in 1980-1998 in Maryland who used a particular program. The waiting time of usage is the number of months between arrival time and the beginning of a program use. The duration of usage is the number of months between the beginning and termination of the program use.

**Observed Trends**

We describe the trends of the three aspects of usage of five refugee programs by arrival cohort. We define an arrival cohort as those who arrived in the U.S. in the same year and we have 19 arrival cohorts from 1980 to 1998. Because refugee programs for resettlement are offered by the government and used by refugees soon after arrival, trends by arrival cohort are suitable to understand the pattern over time. Table 1 presents the detailed description of these trends and Figures 1.1-1.3 provide the visual view of these trends.

In Figure 1.1, an obvious pattern is greater participation rates of cash assistance, employment service and ESL than those of medical assistance and vocational ESL. One reason for the clustering of cash assistance and employment and language services is that a policy requires cash assistance recipients to participate in one training service. However, the data show that many refugees used employment and language services without using cash assistance. Therefore, the participation in cash and training programs need not overlap closely.

The observed trends in usage rates are quite noisy, fluctuating from cohort to cohort. However, there is no obvious upward or downward trend observed for the five programs under examinations with one exception, where medical assistance exhibits a drastic upward trend from 1992 to 1998 and the participation rate of medical assistance converges to those of the rest four programs. In our multivariate analysis later in the report, we can pin down whether this jump in medical assistance use is due to country of origin and socioeconomic factors or due to later arrival cohort. However, even only from the observed trends, we see no strong evidence that later arrival cohorts are more likely to use refugee programs. Borjas (1994) and Borjas and Hilton (1996) documented that later arrival cohorts of immigrants are significantly more likely to use welfare. Figure 1.1 shows that refugees' use of refugee programs in Maryland does not follow such a trend.

Figure 1.2 depicts the duration of participation in each of the five programs among those who participated, i.e., non-participants are excluded. While there is no specific time limit for social services, the time limit for cash and medical assistance has decreased over time. Specifically, the time limit changed from 36 months in 1980-81, to 18 months in 1982-88, to 12 months in 1989-91, to 8 months in 1992-98. The trends for cash assistance and medical assistance in Figure 1.2 should reflect such policy shifts. The pattern for medical assistance is unclear; the large fluctuation for earlier cohorts may be influenced by the small number of refugees who used

medical assistance. However, we clearly see a decline in duration of cash assistance. We also observed a decline in employment service duration and a mild decline in the ESL duration. While there is no specific limit for employment and ESL service, there are two reasons why the trend of employment and language service duration minor the trend of cash assistance duration. First, participants of the cash program are required to participate in an employment or language training service. Second, shorter limits of cash assistance may push refugees to leave training services and to enter labor market more quickly. Also the gap between the longer duration of employment service and the shorter duration of cash assistance shrinks over time and becomes very small in later years, implying a quicker placement of refugees in employment. Whether the quicker entry into labor market results in appropriate employment remains to be seen. Our qualitative study of ex-Soviet Jews clearly indicates that a quick placement usually means a poor fit and does not maximize the education and expertise of ex-Soviet Jews.

Another important pattern we found in Figure 1.2 is that the average months of receiving cash assistance among those who participated are much lower than the time limits. For example, comparing to the 36-month limit during 1980-1981, the average duration is 13-24 months. Even under a shorter limit of 8 months during 1992-1998, the average duration is 5-6 months. Literature has documented the problem of welfare dependency among refugees (Caplan et al. 1989). Our data provide strong evidence that refugees in Maryland do not exhaust public assistance and there is little sign of dependency on public assistance from the refugee programs.

Figure 1.3 describes the waiting time from arrival to beginning of program participation. Similar for all five programs, the amount of waiting time declines from 1980 to 1986 and levels off after 1986. The quicker the participation and the shorter the duration of participation, the sooner is refugees' transition to market activities and self-sufficiency. The shorter waiting time in

Figure 1.3, combined with the shorter duration of program use in Figure 1.2 for both later arrival cohorts, provide indirect evidence for quicker self-sufficiency of refugees in Maryland. The shorter waiting time may also reflect that the agencies implementing refugee programs have developed greater efficiency and outreach capacity.

**Observed Group Differences**

The MONA data allow us to identify two nationalities (Vietnam and former Soviet Union) and four regional groups (African, Caribbean, Cambodian and Laos, and East European) with sufficient sub-sample sizes for meaningful analysis.

We describe the group differences in the three aspects of participation in five refugee programs. Table 2 presents the exact description of these differences and Figures 2.1-2.3 provide the visual view of these differences. The first impression from Figure 2.1 for the participation rates is heterogeneity across the five programs—no one single group ranks always high or always low. Since there is little difference in vocational English training, we drop it from further examination. A closer look at the rest four programs reveals four patterns in relative ranking. First, African, Cambodian, Laotian, and Vietnamese exhibit certain commonalities. They rank the highest in Refugee Cash Assistance and employment service, the lowest in Refugee Medical Assistance, and at the middle position in ESL. It appears that immediate cash assistance and quick labor market attachment are the survival strategies among refugees of these groups, given their lower educational levels and lower development levels of their origin countries. Second, former Soviet immigrants stand out as a unique group. They rank the highest in ESL, the lowest in Refugee Cash Assistance, at the middle position in Refugee Medical Assistance. Given the higher education and greater voluntary organization funding among the former Soviet immigrants, it is

not surprising that ex-Soviet immigrants focus on investing human capital in the form of English proficiency to increase their readiness for jobs that match their education and expertise. Third, the observed rate of participation in cash assistance for Cambodian and Laotian refugees is the highest but their rate of participation in employment service is the second highest. This relatively heavier reliance on cash assistance among Cambodian and Laotian refugees than their use of employment service suggests a need to strengthen labor market attachment for this group of refugees. Fourth, East European immigrants are low in all programs except that they rank the highest in Refugee Medical Assistance.

Figure 2.2 compares the duration of program participation among groups. Again non-participants are excluded from this analysis. There are relatively smaller group differences in vocational English training and we drop it from further examination. One commonality among all groups is that refugees tend to use employment service longer than any other program. Because employment service aims at labor market attachment and self-sufficiency while cash assistance addresses immediate relief, the longer duration of employment service than that of cash assistance indicates the strong orientation toward self-sufficiency among refugees in Maryland. A second pattern emerges from the figure is that Cambodian and Laotian refugees exhibit the longest duration of program usage. Because many refugees from these two countries lived in remote mountain areas with very low economic and social development (e.g., low agricultural technology and some without a written language), we anticipate greater barriers for their adjustment to the U.S. society and their special need for longer use of refugee programs. A third finding is that Vietnamese refugees have slightly longer duration of program participation in cash, employment and ESL programs than ex-Soviet refugees. However, the degree is smaller than we would have anticipated given their lower education. Ex-Soviet refugees exhibit short duration in various

programs. However, as we learned from the qualitative component of this study, ex-Soviet refugees have their unique problems to overcome, including the discrepancy between Soviet and American technology and older age at arrival, which the five programs do not directly address.

Figure 2.3 depicts the waiting time of those who participated in each of the five programs. The waiting time is short for all groups, indicating the government agency's efficiency in providing assistance to needy refugees. The waiting time before participation in employment service is longer than that in ESL and cash assistance program. It took longer time for Cambodian and Laotian refugees to use employment and language service. This suggests a need for improvement in MONA and its agencies' outreaching and implementation of programs for these refugees, since a quick labor market attachment is a effective way of survival and self-sufficiency for them.

**Adjusted Trends of and Group Difference in Program Participation**

Previously we examined the observed trends of program participation by arrival cohort. The observed trends may be obscured by demographic and socioeconomic characteristics of refugees. Our next task is to tease out these determinants of program participation to produce the adjusted trends. We define adjusted trends as the cross-time tendency of program participation net of the variation in demographic and socioeconomic characteristics.

The MONA data provide certain useful information on demographic and socioeconomic characteristics of refugees besides arrival cohort and country of origin. We construct variables of individuals' age at arrival, marital status, education, employment status, and household composition. First, information on date of birth and date of arrival enables us to calculate age at arrival. We emphasize age arrival since it has important implication for human capital and

adaptation. For instance, very young age at arrival implies that most of this person's education will be obtained in U.S. and the education will not be discounted and his/her English will be close to perfect. Arriving as a young adult makes it possible to attend American educational institutions and achieving English proficiency in a short time. However, arriving at mid-age or elderly age makes it difficult to increase education and the process of learning English can be long and painful. Second, whether a person is married or not reflects his/her family responsibility. Third, we distinguish among people with five categories of education—no schooling, elementary, middle school, high school graduation or some college, and college degree or above. Fourth, we distinguish among people who are employed, unemployed but employable, and unemployed but unemployable. Finally, household composition is captured by the number of adults in the household and the number of children in the household.

We use logit models to estimate the adjusted trends of and group difference in program participation. The dependent variable of logit models is dichotomous, 1 for participation and 0 for non-participation. The logit model simultaneously takes into account the effects of arrival cohort, country or region of origin, and demographic and socioeconomic characteristics. The coefficients of logit models can be interpreted as the estimated effects of the predictors on the probability of program participation (the log odds of program participation). A positive coefficient indicates a greater probability and a negative coefficient indicates a smaller probability.

We first examine the effects of socioeconomic characteristics on participation in the five programs (see Table 3). The older the age at arrival, the more likely a person is to participate in all five programs with a stronger effect on cash assistance, ESL and vocational English training and a small effect on medical assistance and employment service. This indicates that older arrivers are in greater need of cash assistance and are of lower readiness for labor market

attachment. If a person is separated, divorced or widowed, he/she is more likely to use cash assistance and employment service and less likely to use medical assistance and ESL, indicating their greater needs for cash assistance and immediate job placement. The higher the educational levels, the less likely a refugee is to participate in any of the five programs, strongly support the overwhelming importance of education in refugees' economic self-sufficiency and integration. Using refugees with missing information on employment as the reference group, we have two interesting findings. First, employed status reduces the probability of receiving cash assistance and those employable but currently unemployed are also less likely to receive cash assistance. As expected, unemployable people are more likely to receive cash assistance. Second, refugees who are currently employed are most likely to participate in employment service, indicating their effort to find better and more suitable jobs. Finally, the results show that household composition matters. The more adults in a household, the less likely a person is to participate in each of the five programs. The more children in a household, the more likely a person needs cash assistance and the less time s/he has to participate in language services. It is not clear why persons with more children have a lower probability to use medical assistance.

Turning to the adjusted trends, Table 4 presents the coefficients for arrival cohorts from logit models for participation in the five programs and Figure 3 is its visual representation. For the three most frequently used programs—cash assistance, employment service and ESL—there is little sign of an increase or decline over time. We see a moderate upward trend of participation in the medical assistance program after 1990 and a slight upward trend of participation in vocational English training. These adjusted trends are quite similar to the observed trends, except that they are smoother, indicating that the trends are independent of the influence of country or region of origin and socioeconomic characteristics.

Table 5 presents the coefficients for country or region of origin from the logit model for participation in the five programs and figure 4 is its visual representation. In Figure 1 we saw higher participation rates in cash assistance and employment service for African, Cambodian, Laotian and Vietnamese refugees and higher participation in ESL for ex-Soviet refugees. Figure 4 shows that these patterns persist after controlling for arrival cohort and socioeconomic characteristics. This is to say that the observed group differences cannot be explained away by arrival cohort and socioeconomic characteristics.

**Who are at Greater Hazard of Participation in Refugee Programs?**

The logit models in the previous section ignore the fact that a recently arrived refugee who has not participated in a program may do so, which gives rise to potential bias in its estimates. To treat this problem, we use a statistical model called the Cox proportional hazards model for survival time data to take into consideration those who are still "at risk" of participation. We assume that refugees may not participate in any refugee programs three years after arrival. The Cox model considers those refugees who have not yet participated in a program within the first three years of arrival as being "at risk" for participating in them by the end of the third year. Since the participation in medical assistance and vocational English training is infrequent, we drop them from this analysis.

Table 6 presents the relative "risk" ratio to the reference category. If the ratio is greater than 1, it means the risk is higher; if the ratio is less than 1, it means the risk is lower. For example, the reference category for country or region of origin is others. Controlling for arrival cohort and socioeconomic characteristics, the risk ratio of cash assistance for Cambodian and Laotian refugees is 1.42, indicating that Cambodian and Laotian refugees are at a greater risk of

participating in cash assistance. We also found a higher hazard for African and Vietnamese refugees than for others. In contrast, the hazard for cash assistance is lower for ex-Soviet refugees. Furthermore, ex-Soviet refugees have low hazard of using employment and language services. This may due to the substantial assistance to ex-Soviet refugees from voluntary organizations. Concerning arrival cohorts, the hazard is significantly higher from 1982 to 1994 for cash assistance program. Unmarried status increases the hazard while higher education decreases the hazard of participation in cash assistance program, employment and English services. Employable refugees, regardless of employment status, have lower hazard for cash assistance and higher hazard for employment and language employment. These results are quite similar to the results from the logit models, indicating that the potential bias from the logit models (due to ignoring the people at risk) is quite small. The nature of the data being that only refugees who ever participated in a refugee program are included in the MONA data may be the main reason why the potential bias is small.

**What Prolongs the Use of Refugee Programs?**

The next question we ask is what prolongs the use of refugee programs. Because we do not observe the duration of non-participants (rather than their duration is being really zero), we use a Tobit model. Table 7 presents the estimated coefficients for cash assistance, employment service and ESL. A positive coefficient indicates a prolonged program use whereas a negative coefficient indicates a shorter duration of program use.

All else being equal, Cambodian, Laotian, Vietnamese and African refugees tend to use cash assistance for a longer period of time whereas ex-Soviet and East European refugees tend to use cash assistance for a shorter period of time. This greater reliance on cash assistance perhaps results from the greater unfamiliarity with the American labor market and lower English skills of

the former than the latter. The pattern is consistent with the observed pattern of cash assistance duration. If refugees rely on cash assistance for a longer time, we expect that they take advantage of the employment service to get better preparation for labor market entrance. Vietnamese refugees do show such a tendency. However, Cambodian and Laotian refugees do not have a longer use of employment service and ESL, even though they tend to use cash assistance for a longer time. This calls for new approaches to increase the labor market readiness of Cambodian and Laotian refugees who came from a drastically different society. The duration of using employment service among ex-Soviet refugees is much lower than the average. This may imply two underlying processes. First, the job placement for ex-Soviet refugees is quick. Second, ex-Soviet refugees tend to rely on other sources for job searching and referral. Our qualitative study of ex-Soviet Jews reveals that they value job placement matching their expertise rather than the speed of any job placement.

Among socioeconomic factors, education is the foremost factor that shortens the duration of program participation. Other factors such age at arrival, unmarried status, fewer adults and more children in the household all prolong the use of refugee program. Employable refugees have much shorter duration of cash assistance but the duration of their use of employment service is long.

## IMMIGRANTS' PARTICIPATION IN WELFARE PROGRAMS

The MDHS data contains 15 months of participation in three major welfare programs among immigrants from August 1998 to October 1999. The population included in the MDHS data is the foreign-born who were legally admitted to the U.S. with an Alien Number (green card) or entered the U.S. illegally. These include immigrants as well as refugees. Since the data do not

provide information on who are refugees and who are not, we cannot divide the population by refugee status and therefore we conduct an analysis on overall immigrants' welfare participation. Like the MONA data, the MDHS data contain only those who have ever participated in a welfare program rather than the entire immigrant population.

We focus our analysis on three programs—Aid to Families with Dependent Children (AFDC), Food Stamps (FS), and General Assistance (GA). AFDC is a cash transfer program targeting mostly single-mother families with dependent children under the age of 18, and unemployed parents with dependent children in some states (AFDC-UP). Food Stamps are in-kind transfers using coupons offered to the poor. General assistance is an emergency program for families or individuals who do not get AFDC or other cash assistance. Unfortunately the data we have does not contain Supplementary Security Income (SSI) participation information, since many elderly immigrants participate in SSI.

Since the data cover only a short period, we cannot undertake a trend analysis. We start with the group differences in the monthly-participation rates, duration, and waiting time of AFDC, FS and GA. Results are presented in Table 8 and Figures 5.1-5.3. In Figure 5.1, we see the much greater monthly participation rate in FS than AFDC while GA has the lowest participation rate and little group differences. Cambodian and Laotian immigrants have a greater AFDC participation rate than others whereas ex-Soviet immigrants have the highest FS rate than others and Cambodian and Laotian immigrants rank the second. Cambodian and Laotian immigrants exhibit the longest duration of AFDC and FS (see Figure 5.2) and the longest waiting time to participate in AFDC, FS and GA (see Figure 5.3). Figure 5.3 shows that Cambodian and Laotian immigrants have the longest waiting time and ex-Soviet immigrants have the shortest waiting time before they take up the benefits from AFDC, FS and GA.

The MDHS data contain relatively less information on the demographic and socioeconomic characteristics than the MONA data. We construct several demographic variables, including age, sex, household head, age at arrival and naturalization and immigration status (legal immigrant vs. illegal immigrant, with naturalized citizen as the reference). We use a logit model for the monthly participation in AFDC, FS and GA as a function of country or region of origin and the above mentioned demographic characteristics. Table 9 presents the coefficient from the logit model. Most of the effects of demographic characteristics are as expected. The older the age, the more likely to participate in FS and GA. Men are less likely to participate in AFDC and FS but more likely to receive GA. The household heads are more likely to receive AFDC and GA but not FS. Age at arrival has a negative effect on AFDC and FS but a positive effect on GA. Naturalized immigrants and non-naturalized legal immigrants have no difference in their use of AFDC. However, non-citizen legal immigrants are less likely to use FS but more on GA. Illegal immigrants have low participation in all three programs due to their illegal status.

Controlling for these demographic characteristics, we look at the group differences in AFDC and FS again in Table 10 and Figure 6. Figure 6 reveals that the adjusted group differences in AFDC and FS remain similar to the group differences observed in Figure 5.1 that Cambodian and Laotian immigrants are more likely to participate in AFDC and FS. Ex-Soviet immigrants are less likely to participate in AFDC and more likely to participate in FS. The welfare literature has documented the negative consequences of AFDC dependency on women's labor force participation (see review in Moffitt 1992). The heavier AFDC and FS use among Cambodian and Laotian immigrants arouses concern over their eventual transition to self-sufficiency and indicates a need for an emphasis on human capital investment for this group of immigrants. In contrast, the

welfare use pattern of ex-Soviet immigrants flags the need to address their immediate material hardship through such welfare programs as FS.

We also investigate the hazard of immigrants' welfare participation (see Table 11). Again Cambodian, Laotian, and to a lower degree African, immigrants have greater hazard to use AFDC and FS. Whereas ex-Soviet immigrants have lower hazard for AFDC, they have greater hazard for FS. Vietnamese immigrants do not tend to use AFDC more but they tend to use FS more. In our analysis for the duration of welfare participation (Table 12), we find that Cambodian and Laotian immigrants exhibit much longer duration and ex-Soviet exhibit much shorter duration than others. Cambodian, Laotian and Vietnamese immigrants have similarly high duration on FS, higher than ex-Soviet immigrants. The patterns in hazard and duration of AFDC and FS deepen the welfare dependency problem of Cambodian and Laotian immigrants.

## REFUGEES' PARTICIPATION IN WELFARE PROGRAMS

Our last analysis attempts to depict refugees' participation in welfare programs, for which refugees are eligible, as they are eligible for refugee programs. A comprehensive view of refugees' participation in public programs cannot leave out their participation in welfare programs. Limited by the lack of information of refugee status in the MDHS data, we use an indirect method. Because refugee programs specifically target refugees and the implementation effort by the state and the voluntary organizations, it is reasonable to assume that needed refugees would resort first to refugee programs and then to welfare programs. If this assumption holds, we can use the population in the MONA data as the basic population and merge in the MDHS data by matching the alien number. Information brought in from the MDHS data should enable us to perform an analysis on refugees' participation in welfare programs. However, this analysis is tentative for

two reasons. First, because of the large likelihood of error in taking down the Alien Number of each applicant (particularly problematic in the MDHS data), the merging by Alien Number might fail to match the exact same person in MONA vs. MDHS data. Second, the time window in MDHS (August 1998 to October 1999) is too short to capture all the welfare participation spells of refugees after arrival. To overcome this, we restrict the arrival cohorts to 1990 and after. Even so, we will need to use additional data from MDHS to cover a longer period of time for drawing conclusions.

Table 13 and Figure 7 describe the group differences in refugees' participation in AFDC and FS. Because very few Cambodian and Laotian refugees are successfully matched, we cannot accurately assess their participation rate of AFDC and FS and therefore we drop them from analysis. Among other groups, we see that the other group ranks highest in both AFDC and FS participation. We also see that ex-Soviet and Vietnamese refugees rank the second and third in FS recipiency.

In order to see whether these group differences persist or change after controlling for socioeconomic characteristics, we estimate logit models for AFDC and FS participation. Table 14 presents the impact of socioeconomic characteristics. The older age at arrival, the more likely a refugee is to use FS. Female and unmarried status increases the probability of both AFDC and FS. We expect that education plays an important role in reducing welfare participation but we do not find such a role among refugees.

After controlling for socioeconomic characteristics, the adjusted group differences change from the observed group differences. In particular, Africans are more likely to use AFDC and FS while ex-Soviet refugees are the top group to use FS.

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**TABLE 1. TRENDS OF REFUGEE PROGRAM PARTICIPATION BY ARRIVAL COHORTS**

| Year of | Proportion | | | | | Duration (months) | | | | | Waiting Time (months) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Arrival | PA | MA | REG | ESL | VESL | PA | MA | REG | ESL | VESL | PA | MA | REG | ESL | VESL |
| 1980 | .32 | .00 | .69 | .28 | .00 | 24.07 | .00 | 15.80 | 8.77 | .00 | 16.03 | .00 | 53.37 | 27.73 | .00 |
| 1981 | .40 | .02 | .57 | .30 | .03 | 13.19 | 12.67 | 17.44 | 11.37 | 2.20 | 17.85 | 52.00 | 34.90 | 19.92 | 77.40 |
| 1982 | .62 | .02 | .62 | .51 | .04 | 14.38 | 5.00 | 17.34 | 10.90 | 4.00 | 8.18 | 23.75 | 23.91 | 12.38 | 26.00 |
| 1983 | .80 | .02 | .54 | .36 | .05 | 11.55 | 3.00 | 19.11 | 9.03 | 2.45 | 7.10 | 32.00 | 15.03 | 9.51 | 14.09 |
| 1984 | .83 | .03 | .46 | .37 | .07 | 10.83 | 9.55 | 15.49 | 7.36 | 2.31 | 3.66 | 3.25 | 13.70 | 5.68 | 10.15 |
| 1985 | .79 | .03 | .58 | .38 | .02 | 10.80 | 2.75 | 16.24 | 6.02 | 3.00 | 3.00 | .13 | 8.13 | 5.58 | 11.29 |
| 1986 | .75 | .00 | .53 | .33 | .06 | 11.85 | .00 | 15.61 | 5.25 | 2.38 | 2.03 | .00 | 6.39 | 5.46 | 14.08 |
| 1987 | .55 | .05 | .65 | .48 | .10 | 9.51 | 5.91 | 13.32 | 5.16 | 3.20 | 2.77 | 1.00 | 6.91 | 6.68 | 7.90 |
| 1988 | .45 | .02 | .54 | .49 | .06 | 8.57 | 13.00 | 13.70 | 3.75 | 2.85 | 2.86 | 4.50 | 5.66 | 5.47 | 11.15 |
| 1989 | .46 | .00 | .45 | .51 | .04 | 6.99 | 6.75 | 12.65 | 4.53 | 3.20 | 2.15 | 1.25 | 3.64 | 2.13 | 5.98 |
| 1990 | .59 | .02 | .47 | .61 | .08 | 7.36 | 7.00 | 13.11 | 4.44 | 2.31 | 1.70 | .66 | 4.38 | 2.09 | 7.19 |
| 1991 | .60 | .01 | .49 | .65 | .10 | 5.71 | 5.19 | 16.37 | 5.02 | 3.42 | 1.70 | .50 | 4.52 | 1.48 | 6.31 |
| 1992 | .53 | .04 | .42 | .75 | .06 | 5.14 | 4.84 | 13.73 | 5.70 | 2.42 | 2.09 | 2.24 | 7.25 | 1.48 | 10.24 |
| 1993 | .55 | .19 | .44 | .67 | .08 | 4.77 | 5.19 | 11.88 | 4.72 | 3.85 | 2.04 | 1.11 | 9.24 | 1.86 | 14.36 |
| 1994 | .48 | .22 | .57 | .65 | .06 | 5.16 | 6.60 | 9.79 | 3.50 | 3.54 | 1.96 | .96 | 9.55 | 3.32 | 18.61 |
| 1995 | .35 | .27 | .56 | .49 | .05 | 5.04 | 7.02 | 7.62 | 3.64 | 6.09 | 2.02 | .88 | 9.01 | 3.17 | 17.53 |
| 1996 | .36 | .27 | .49 | .53 | .05 | 6.17 | 7.27 | 6.34 | 3.55 | 5.91 | 1.45 | .81 | 8.82 | 3.67 | 10.80 |
| 1997 | .38 | .51 | .35 | .47 | .04 | 5.95 | 7.03 | 5.58 | 3.40 | 4.65 | 1.40 | 1.17 | 7.60 | 2.34 | 9.05 |
| 1998 | .42 | .47 | .48 | .43 | .03 | 5.49 | 6.79 | 5.23 | 3.20 | 5.58 | 1.06 | 1.23 | 3.85 | 1.70 | 4.10 |
| Total | .52 | .13 | .48 | .58 | .07 | 6.68 | 6.57 | 12.07 | 4.72 | 3.41 | 2.33 | 1.26 | 8.12 | 2.71 | 11.25 |

Source: MONA data (1980-1998)

Note: PA: Refugee Cash Assistance MA: Refugee Medical Assistance REG: Employment Service

ESL: English as Second Language Training VESL: Vocational English Training

Table 2. Group Difference in Refugee Program Participation

| Groups | Proportion | | | | | Duration (months) | | | | | Waiting Time (months) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | PA | MA | REG | ESL | VESL | PA | MA | REG | ESL | VESL | PA | MA | REG | ESL | VESL |
| African | .56 | .14 | .57 | .44 | .09 | 6.36 | 6.36 | 10.50 | 4.63 | 2.90 | 1.76 | .88 | 8.30 | 3.58 | 15.30 |
| Caribbean | .49 | .27 | .45 | .44 | .06 | 6.01 | 6.97 | 10.83 | 4.06 | 4.56 | 2.71 | .85 | 8.50 | 4.87 | 21.19 |
| Cambodian, Laotian | .71 | .01 | .51 | .39 | .05 | 10.98 | 10.92 | 15.47 | 7.63 | 2.58 | 3.84 | 12.69 | 13.10 | 7.24 | 10.59 |
| Vietnamese | .67 | .07 | .59 | .52 | .08 | 6.93 | 5.90 | 13.04 | 5.50 | 3.28 | 2.02 | 1.51 | 6.59 | 2.79 | 10.69 |
| Ex-Soviet | .34 | .18 | .34 | .75 | .04 | 5.15 | 6.70 | 10.83 | 4.20 | 4.08 | 2.86 | 1.14 | 9.45 | 1.86 | 8.61 |
| East European | .34 | .50 | .34 | .38 | .03 | 5.82 | 7.28 | 7.50 | 3.44 | 3.43 | 1.23 | .40 | 8.70 | 2.80 | 12.83 |
| Others | .52 | .14 | .50 | .50 | .05 | 7.71 | 6.51 | 12.01 | 4.97 | 3.48 | 2.24 | 1.80 | 8.37 | 3.92 | 9.74 |
| Total | .52 | .13 | .48 | .58 | .06 | 6.80 | 6.57 | 12.06 | 4.81 | 3.41 | 2.33 | 1.26 | 8.12 | 2.71 | 11.25 |

Source: MONA data (1980-1998)

Note: PA: Refugee Cash Assistance MA: Refugee Medical Assistance REG: Employment Service
ESL: English as Second Language Training VESL: Vocational English Training

Table 3. Effects of Socioeconomic Characteristics on Refugee Program Participation

| | PA | MA | REG | ESL | VESL |
|---|---|---|---|---|---|
| Age at arrival | .006** | .004* | .004* | .008** | .010** |
| Unmarried | .324** | -.453** | .367** | -.541** | .024 |
| Elementary schooling | -.124 | .198 | -.166 | -.368* | .451 |
| Middle school | -.588** | .612 | -.929** | -.245 | .805** |
| High school/some college | -1.067** | .882** | -1.583** | -.499** | .839** |
| College or more | -1.512** | 1.037** | -2.052** | -.584** | -.245 |
| Employed | -.527** | -.362* | 3.328** | 1.076** | 1.474** |
| Unemployed, employable | -.473** | -.219 | 1.963** | 1.133** | .319 |
| Unemployed, unemployable | .604** | -.479* | .665** | .312* | .730** |
| Number of adults in household | -.478** | -.255** | -.295** | -.022 | -.102** |
| Number of Children in household | .281** | -.156** | .004 | -.244** | -.084** |

Source: MONA data (1980-1998)
*p<.05, **p<.01
Note: PA: Refugee Cash Assistance MA: Refugee Medical Assistance
REG: Employment Service ESL: English as Second Language Training
VESL: Vocational English Training

**TABLE 4. TRENDS OF REFUGEE PROGRAM PARTICIPATION BY ARRIVAL COHORTS, CONTROLLING FOR GROUP DIFFERENCE AND SOCIOECONOMIC CHARACTERISTICS**

| Arrival Cohort | PA | MA | REG | ESL | VESL |
|---|---|---|---|---|---|
| 1980 | .00 | .00 | .00 | .00 | .00 |
| 1981 | .36 | 16.19 | -.40 | .29 | 16.19 |
| 1982 | 1.49** | 16.23** | .20 | 1.38** | 16.52** |
| 1983 | 2.30** | 16.10** | -.01 | .78* | 16.85** |
| 1984 | 2.77** | 16.69** | -.46 | .85** | 17.20** |
| 1985 | 2.12** | 17.04** | -.17 | .74* | 15.97** |
| 1986 | 2.37** | n.a. | -.39 | .28 | 16.94** |
| 1987 | 1.54** | 17.18** | -.08 | .76 | 17.33** |
| 1988 | .91** | 15.99** | -.76* | .76* | 16.70** |
| 1989 | 1.39** | 14.04** | -.62* | .72** | 16.64** |
| 1990 | 1.90** | 15.35** | -.51 | 1.66** | 17.38** |
| 1991 | 2.32** | 15.53** | -.22 | 1.65** | 17.81** |
| 1992 | 2.40** | 16.63** | -.38 | 1.91** | 17.39** |
| 1993 | 2.29** | 18.30** | -.26 | 1.62** | 17.73** |
| 1994 | 2.03** | 18.59** | .72* | 1.45** | 17.57** |
| 1995 | 1.20** | 18.80** | .82** | .77** | 17.31** |
| 1996 | .95** | 18.79** | .95** | 1.60** | 17.41** |
| 1997 | 1.10** | 19.70** | .51 | 1.54** | 17.49** |
| 1998 | 1.45** | 19.81** | .88** | .84** | 17.00** |

Source: MONA data (1980-1998)
*p<.05, **p<.01
Note: PA: Refugee Cash Assistance MA: Refugee Medical Assistance
REG: Employment Service ESL: English as Second Language Training
VESL: Vocational English Training

**TABLE 5. GROUP DIFFERENCE IN REFUGEE PROGRAM PARTICIPATION, CONTROLLING FOR ARRIVAL COHORTS AND SOCIOECONOMIC CHARACTERISTICS**

| Ethnic Group | PA | MA | REG | ESL | VESL |
|---|---|---|---|---|---|
| African | .16* | -.44** | .39** | -.52** | .48** |
| Caribbean | -.10 | .20 | -.30 | -.15 | .13 |
| Cambodian, Laotian | .69** | -.71* | .05 | -.02 | .51* |
| Vietnamese | .48** | -.23* | .48** | -.31** | .24 |
| Ex-Soviet | -.52** | .48** | -1.12** | .57** | -.45** |
| East European | -.60** | .59** | -.09 | -.08 | -.30 |
| Others | .00 | .00 | .00 | .00 | .00 |

Source: MONA data (1980-1998)
*p<.05, **p<.01
Note: PA: Refugee Cash Assistance MA: Refugee Medical Assistance
REG: Employment Service ESL: English as Second Language Training
VESL: Vocational English Training

Table 6. Hazard of Refugee Program Participation (estimates of cox models)

| | PA | REG | ESL |
|---|---|---|---|
| Country of origin | | | |
| African | 1.24** | 1.22** | .88* |
| Caribbean | 1.02 | .99 | .84 |
| Cambodian, Laotian | 1.42** | 1.01 | 1.00 |
| Vietnamese | 1.31** | 1.19** | .90* |
| Ex-Soviet | .87** | .69** | .84** |
| East European | .62** | 1.01 | .83 |
| Arrival cohort | | | |
| 1981 | 1.48 | .97 | 1.08 |
| 1982 | 2.59** | 1.29 | 2.05** |
| 1983 | 3.36** | 1.44* | 1.41 |
| 1984 | 4.02** | .96 | 1.28 |
| 1985 | 3.58** | 1.13 | 1.20 |
| 1986 | 2.59** | 1.18 | 1.20 |
| 1987 | 3.13** | .92 | 1.47 |
| 1988 | 1.92** | .84 | 1.37 |
| 1989 | 2.69** | .77 | 1.11 |
| 1990 | 2.91** | .89 | 1.72** |
| 1991 | 2.99** | .82 | 1.51* |
| 1992 | 3.38** | .61** | 1.16 |
| 1993 | 3.34** | .67** | 1.16 |
| 1994 | 2.80** | 1.25 | 1.45 |
| 1995 | 1.48 | 1.55** | 1.49 |
| 1996 | 1.49 | 1.62** | 1.69* |
| 1997 | 1.62* | 1.96** | 1.87** |
| 1998 | 1.23 | 2.40** | 1.69* |
| Socioeconomic characteristics | | | |
| Age at arrival | 1.00** | 1.00** | 1.01** |
| Unmarried | 1.14** | 1.19** | .98 |
| Elementary schooling | 1.08 | 1.03 | .97 |
| Middle schooling | 1.02 | 1.04 | .97 |
| High school/some college | .81* | .86 | .77** |
| College or more | .65** | .72** | .66** |
| Employed | .73** | 6.61** | 1.44** |
| Unemployed, employable | .76** | 4.11** | 1.44** |
| Unemployed, unemployable | 1.24** | 2.17** | 1.19 |
| Number of adults in household | .81** | .90** | .97* |
| Number of Children in family | 1.07** | 1.01 | .92** |

Source: MONA data (1980-1998)
*p<.05, **p<.01
Note: PA: Refugee Cash Assistance MA: Refugee Medical Assistance
REG: Employment Service ESL: English as Second Language Training

VESL: Vocational English Training

Table 7. Duration of Refugee Program Participation (estimates of tobit models)

| | PA | REG | ESL |
|---|---|---|---|
| Country of origin | | | |
| African | .52* | .95 | -.97** |
| Caribbean | -.39 | -1.21 | -.27 |
| Cambodian, Laotian | 1.68** | .16 | .17 |
| Vietnamese | 1.29** | 1.87** | -.29 |
| Ex-Soviet | -1.96** | -5.67** | .54** |
| East European | -1.99** | -.88 | -.30 |
| Arrival cohort | | | |
| 1981 | -2.82** | -1.32 | 1.79 |
| 1982 | 2.79** | 2.23 | 5.16** |
| 1983 | 2.67** | 1.80 | 2.35 |
| 1984 | 2.84** | -3.63* | 1.78* |
| 1985 | 1.28 | -2.10 | .57 |
| 1986 | 2.79** | -3.55* | -.70 |
| 1987 | -.74 | -3.99* | .77 |
| 1988 | -3.09** | -6.46** | -.44 |
| 1989 | -2.79** | -6.67** | .43 |
| 1990 | -1.09 | -5.49** | 2.15** |
| 1991 | -1.27 | -2.37 | 2.52** |
| 1992 | -1.07 | -4.97** | 3.55** |
| 1993 | -1.48 | -5.52** | 2.34** |
| 1994 | -1.86** | -2.37 | 1.22 |
| 1995 | -4.19** | -3.63* | .22 |
| 1996 | -4.36** | -4.00** | 1.83* |
| 1997 | -4.06** | -5.87** | 1.57* |
| 1998 | -3.33** | -5.07** | .22 |
| Socioeconomic characteristics | | | |
| Age at arrival | .02** | .04** | .04** |
| Unmarried | 1.03** | 1.31** | -.83** |
| Elementary schooling | -.81* | -1.90* | -1.38** |
| Middle schooling | -1.95** | -3.35** | -1.94** |
| High school/some college | -3.68** | -6.35** | -2.66** |
| College or more | -5.52** | -9.77** | -3.13** |
| Employed | -.88** | 16.86** | 3.02** |
| Unemployed, employable | -1.20** | 10.06** | 3.08** |
| Unemployed, unemployable | 2.13** | 2.16** | .71* |
| Number of adults in household | -1.18** | -1.36** | -.27** |
| Number of Children in family | .71** | .14 | -.54** |

Source: MONA data (1980-1998)
*p<.05, **p<.01
Note: PA: Refugee Cash Assistance MA: Refugee Medical Assistance
REG: Employment Service ESL: English as Second Language Training

VESL: Vocational English Training

**TABLE 8. GROUP DIFFERENCE IN IMMIGRANTS' WELFARE PROGRAM PARTICIPATION**

| Groups | Proportion | | | Duration (months) | | | Waiting Time (months) | | |
|---|---|---|---|---|---|---|---|---|---|
| | AFDC | FS | GA | AFDC | FS | GA | AFDC | FS | GA |
| African | .12 | .56 | .05 | 4.82 | 2.11 | 1.18 | 74.51 | 56.20 | 79.27 |
| Caribbean | .12 | .61 | .03 | 5.99 | 28.17 | .74 | 121.90 | 96.56 | 127.65 |
| Cambodian, Laotian | .18 | .73 | .03 | 10.55 | 37.11 | .71 | 157.42 | 129.34 | 166.90 |
| Vietnamese | .10 | .67 | .03 | 5.78 | 34.24 | .99 | 84.23 | 53.49 | 89.71 |
| Ex-Soviet | .02 | .79 | .02 | .99 | 31.85 | .52 | 66.46 | 36.27 | 67.09 |
| East European | .10 | .57 | .02 | 4.59 | 23.25 | .69 | 109.59 | 89.71 | 114.20 |
| Others | .08 | .60 | .04 | 3.38 | 25.54 | 1.16 | 112.78 | 88.98 | 115.76 |
| Total | .08 | .64 | .04 | 3.42 | 27.20 | 1.01 | 99.70 | 74.49 | 102.77 |

Source: MDHS data (8/1998-10/1999).

Note: AFDC: Aid to Families with Dependent Children FS: Food Stamp
GA: General Assistance

Table 9. Effects of Demographic Characteristics on Immigrants' Welfare Program Participation

| | AFDC | Food Stamp | General Assistance |
|---|---|---|---|
| Age | .00 | .03** | .02** |
| Male | -.26** | -.09** | .20** |
| Household head | .51** | -.26** | .80** |
| Age at arrival | -.05** | -.01** | .02** |
| Legal immigrant | -.03 | -.72** | 1.63** |
| Illegal immigrant | -.86** | -.68** | -2.03** |

Source: MDHS data (8/1998-10/1999).
*p<.05, **p<.01

**TABLE 10. GROUP DIFFERENCE IN IMMIGRANTS' WELFARE PROGRAM PARTICIPATION, CONTROLLING FOR DEMOGRAPHIC CHARACTERISTICS**

| Groups | AFDC | Food Stamp |
|---|---|---|
| African | .34** | .07** |
| Caribbean | .40** | .09** |
| Cambodian, Laotian | .82** | .52** |
| Vietnamese | .34** | .31** |
| Ex-Soviet | -.58** | .71** |
| East European | .25** | -.09* |

Source: MDHS data (8/1998-10/1999).
*p<.05, **p<.01

Table 11. Hazard of Immigrants' Welfare Program Participation (estimates of cox models)

| | AFDC | Food Stamp |
|---|---|---|
| Country of origin | | |
| African | 1.33** | 1.22** |
| Caribbean | 1.17 | 1.20** |
| Cambodian, Laotian | 1.69** | 1.35** |
| Vietnamese | 1.14 | 1.63** |
| Ex-Soviet | .61** | 1.61** |
| East European | 1.27 | 1.13 |
| Demographic characteristics | | |
| Age | .76** | .68** |
| Male | .81** | 1.06** |
| Household head | 1.59** | .88** |
| Age at arrival | 1.26** | 1.47** |
| Legal immigrant | 1.46** | 1.12** |
| Illegal immigrant | .66** | 1.14** |

Source: MDHS data (8/1998-10/1999).
*p<.05, **p<.01

Table 12. Duration of Program Immigrants' Welfare Participation within a 15-Month Window (estimates of tobit models)

| | AFDC | Food Stamp |
|---|---|---|
| Country of origin | | |
| African | 6.60** | -.63 |
| Caribbean | 5.80 | 2.88** |
| Cambodian, Laotian | 2.71** | 8.62** |
| Vietnamese | 7.84** | 9.63** |
| Ex-Soviet | -10.82** | 4.91** |
| East European | 3.95 | -1.28 |
| Demographic characteristics | | |
| Age | .02 | .74** |
| Male | -6.44** | -1.10** |
| Household head | 10.26** | -4.52** |
| Age at arrival | -1.08** | -.56** |
| Legal immigrant | .38 | -14.03** |
| Illegal immigrant | -17.51** | -16.01** |

Source: MDHS data (8/1998-10/1999).
*p<.05, **p<.01

**TABLE 13. GROUP DIFFERENCE IN REFUGEES' WELFARE PROGRAM PARTICIPATION (PROPORTION)**

| | AFDC | Food Stamp |
|---|---|---|
| African | .01 | .08 |
| Caribbean | .02 | .08 |
| Vietnamese | .02 | .10 |
| Ex-Soviet | .01 | .18 |
| East European | .01 | .09 |
| Others | .05 | .41 |
| Total | .02 | .17 |

Source: MONA data (1980-1998) and MDHS data (8/1998-10/1999).

Table 14. Effects of Socioeconomic Characteristics on Refugees' Welfare Program Participation

| | AFDC | Food Stamp |
|---|---|---|
| Male | -.73** | -.45** |
| Age at arrival | -.01 | .05** |
| Unmarried | .64** | .41** |
| Elementary schooling | -.25 | .11 |
| Middle school | -.59 | .03 |
| High school/some college | -1.09** | -.20 |
| College or more | -.82 | -.09 |
| Employed | -1.18** | -1.16** |
| Unemployed, employable | -.67 | -.53** |
| Unemployed, unemployable | -.48 | -.09 |
| Number of adults in household | -.08 | -.10** |
| Number of children in household | .21** | .24** |

Source: MONA data (1980-1998) and MDHS data (8/1998-10/1999).
*p<.05, **p<.01

**TABLE 15. GROUP DIFFERENCE IN REFUGEES' WELFARE PROGRAM PARTICIPATION, CONTROLLING FOR SOCIOECONOMIC CHARACTERISTICS**

| | AFDC | Food Stamp |
|---|---|---|
| African | -1.30** | -2.06** |
| Caribbean | -.56 | -1.98** |
| Vietnamese | -.81** | -1.10** |
| Ex-Soviet | -1.15** | -.78** |
| East European | -1.23* | -2.41** |

Source: MONA data (1980-1998) and MDHS data (8/1998-10/1999).
*p<.05, **p<.01

Figure 1.1 Trends of Refugee Program Participation by Arrival Cohorts (1980-1998)

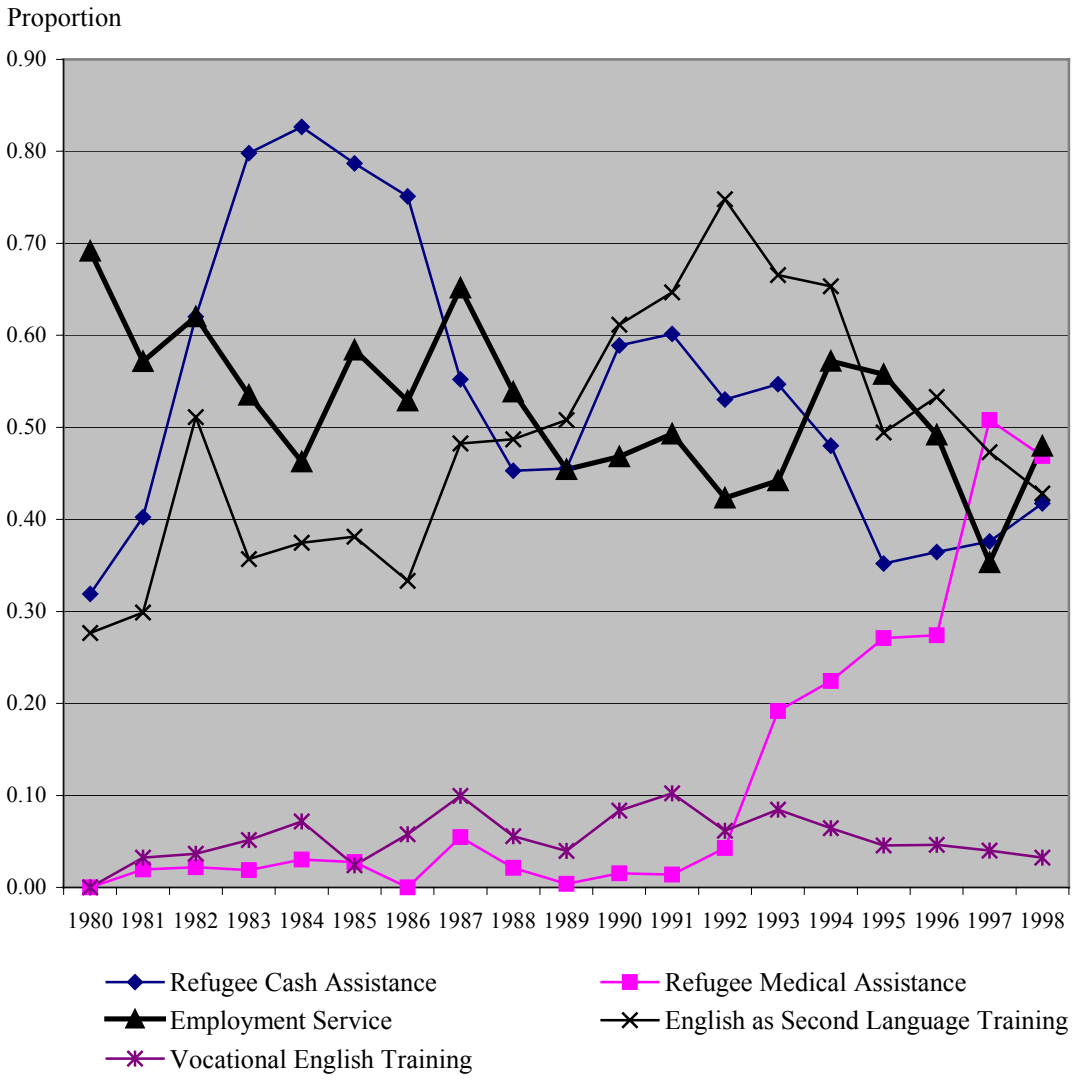

Figure 1.2 Duration of Refugee Program Participation by Arrival Cohorts (1980-1998)

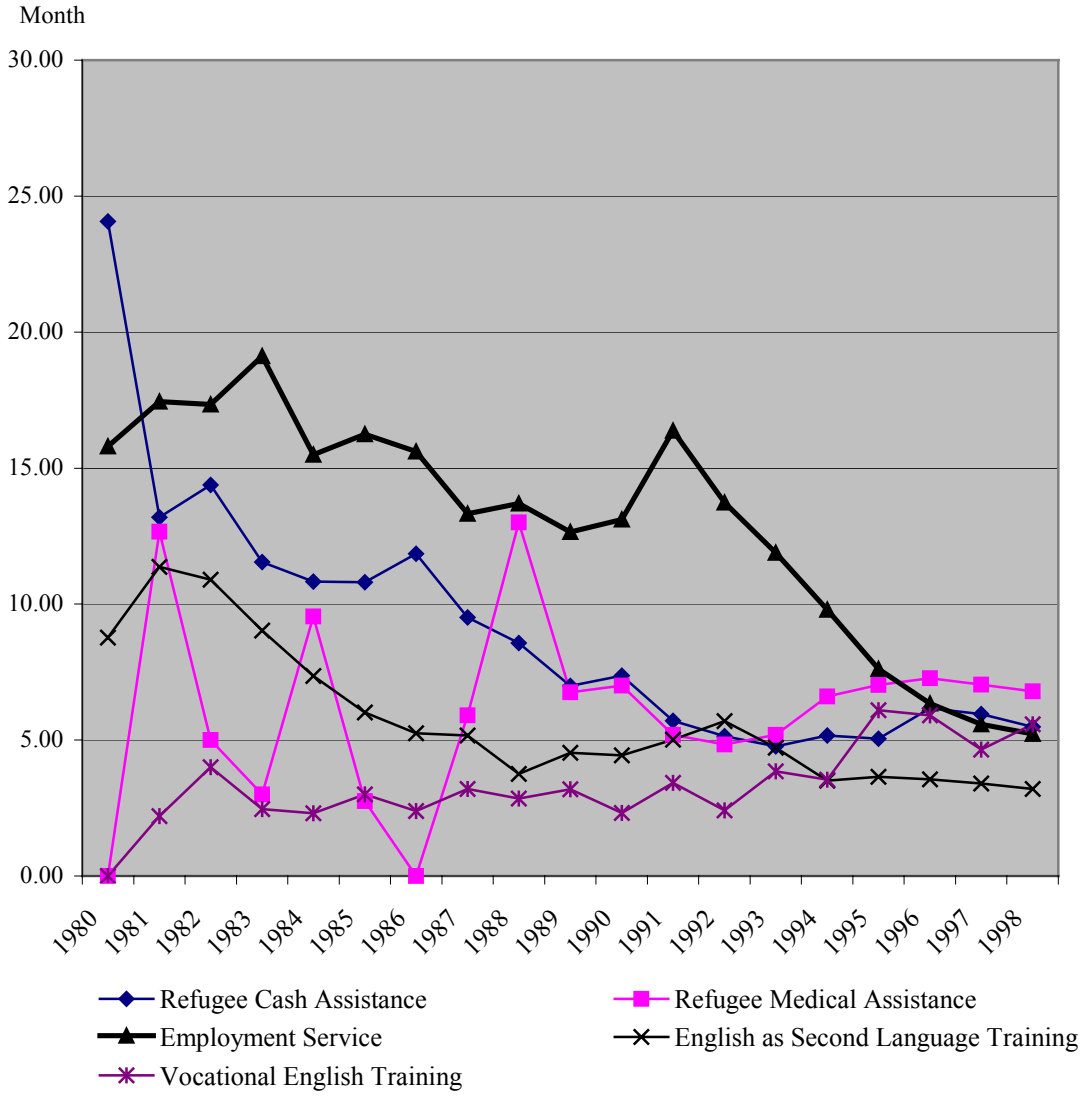

Figure 1.3 Waiting Time of Refugee Program Participation by Arrival Cohorts (1980-1998)

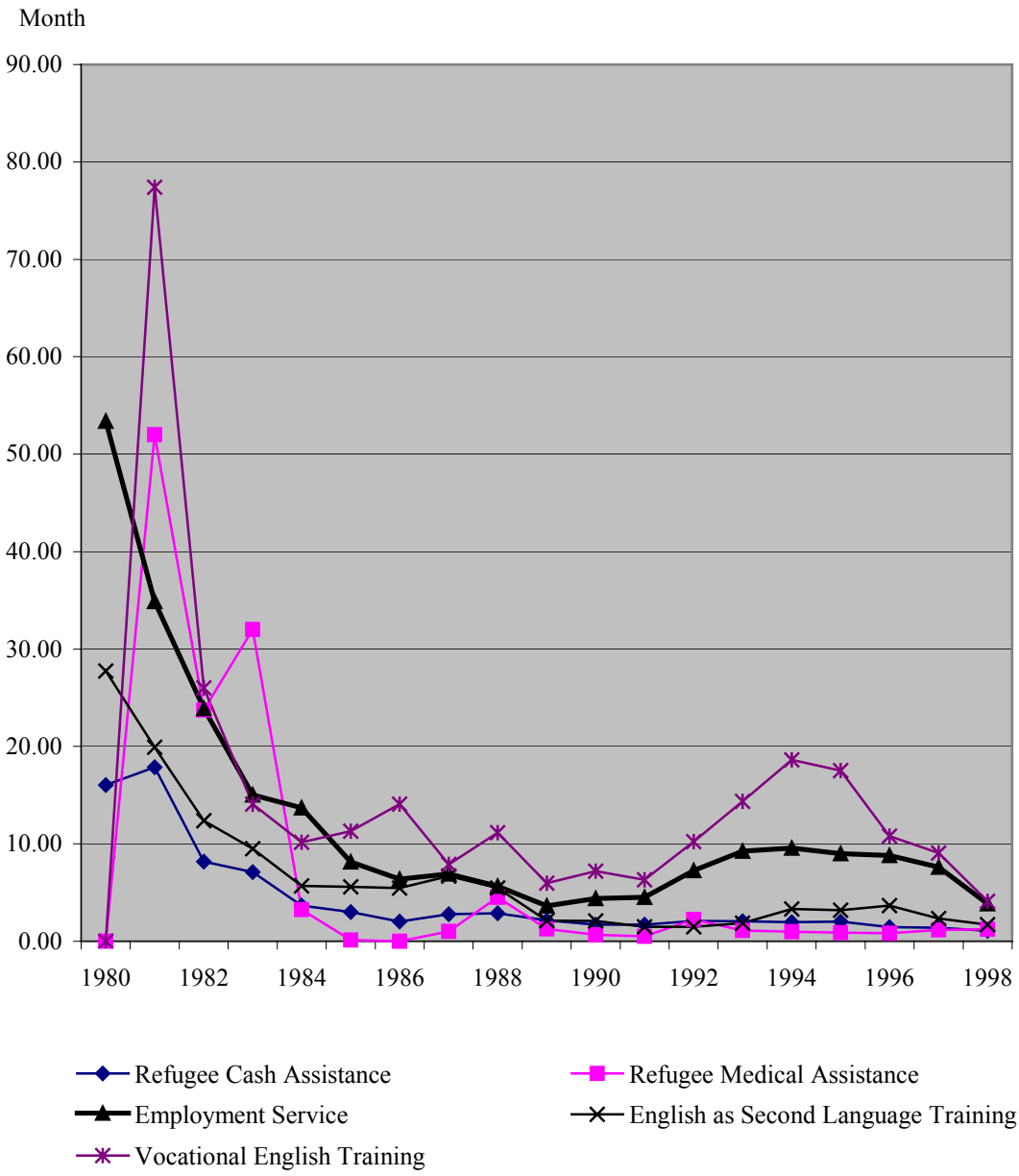

Figure 2.1 Group Difference in Refugee Program Participation
(Proportion)

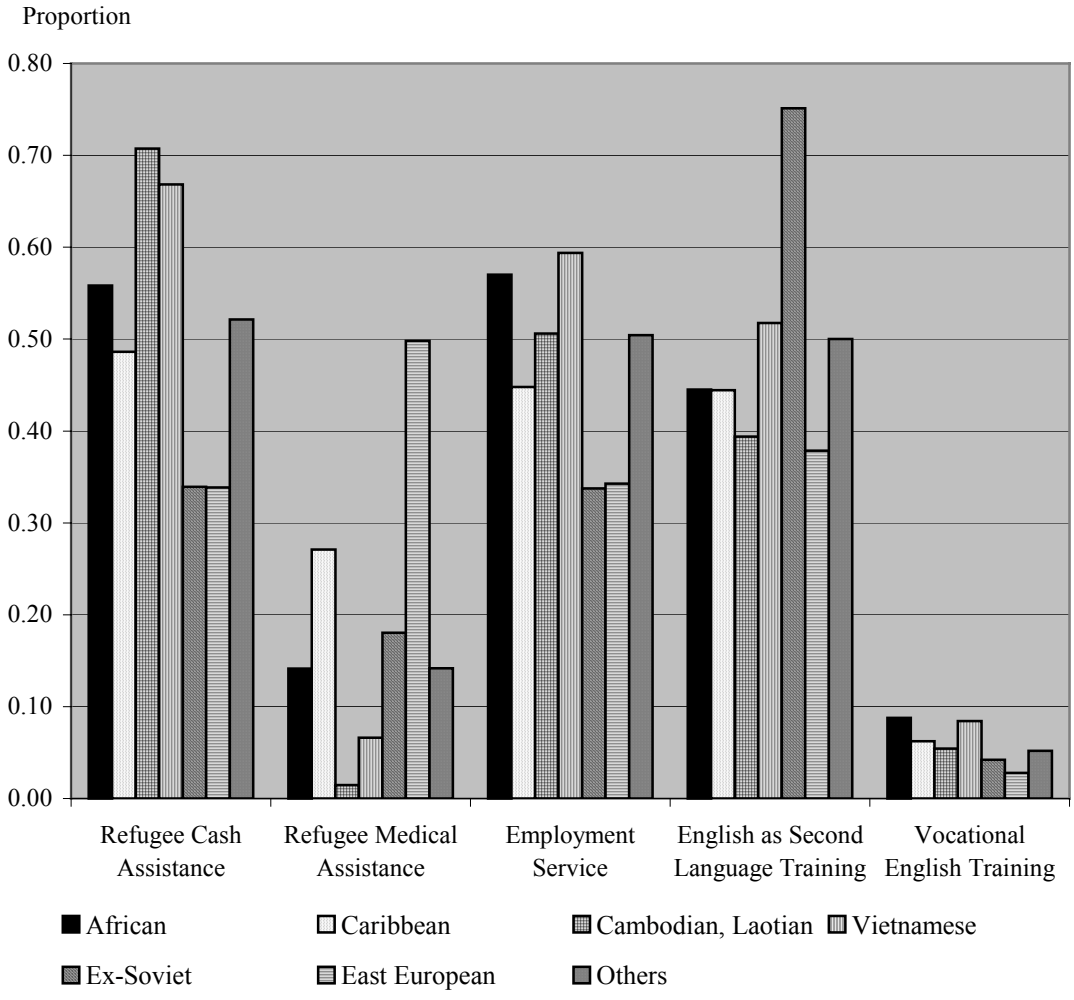

Figure 2.2 Group Difference in Refugee Program Participation
(Duration)

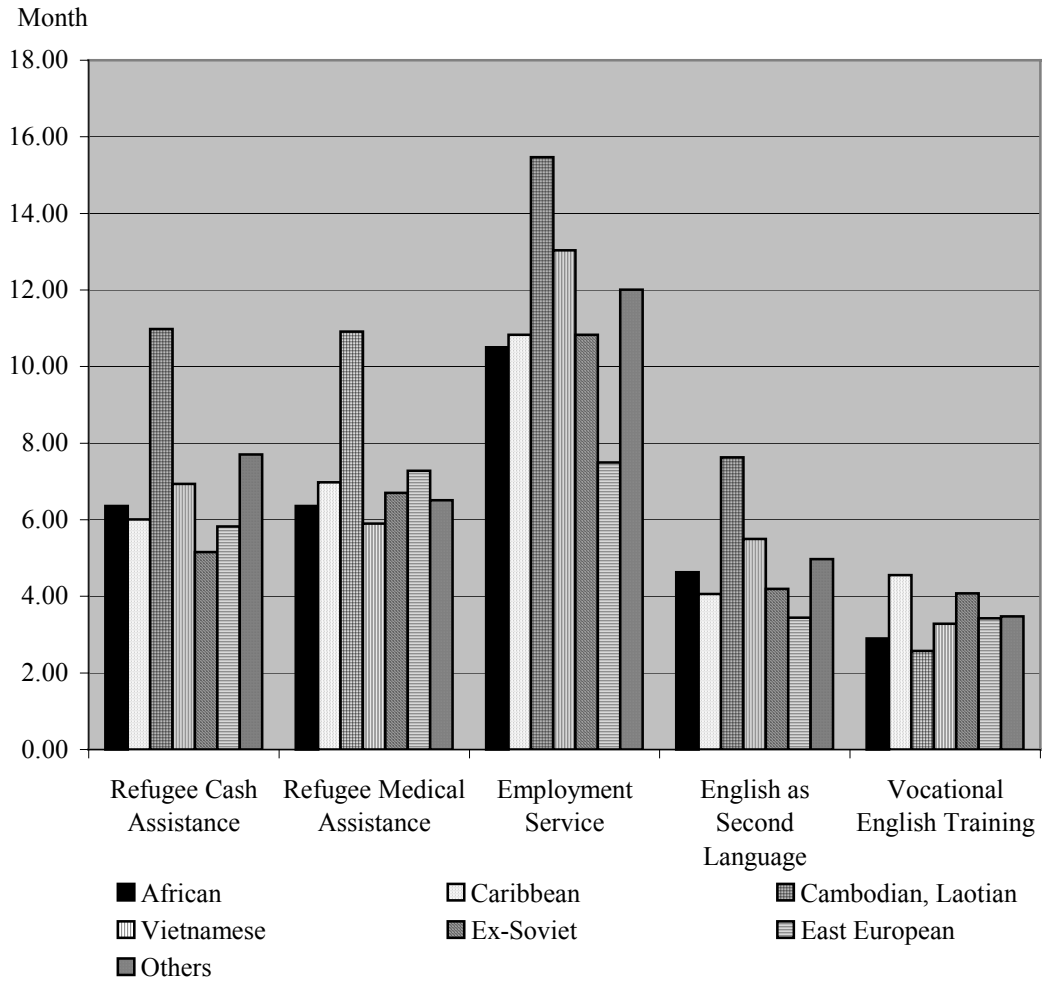

Figure 2.3 Group Difference in Refugee Program Participation
(Waiting Time)

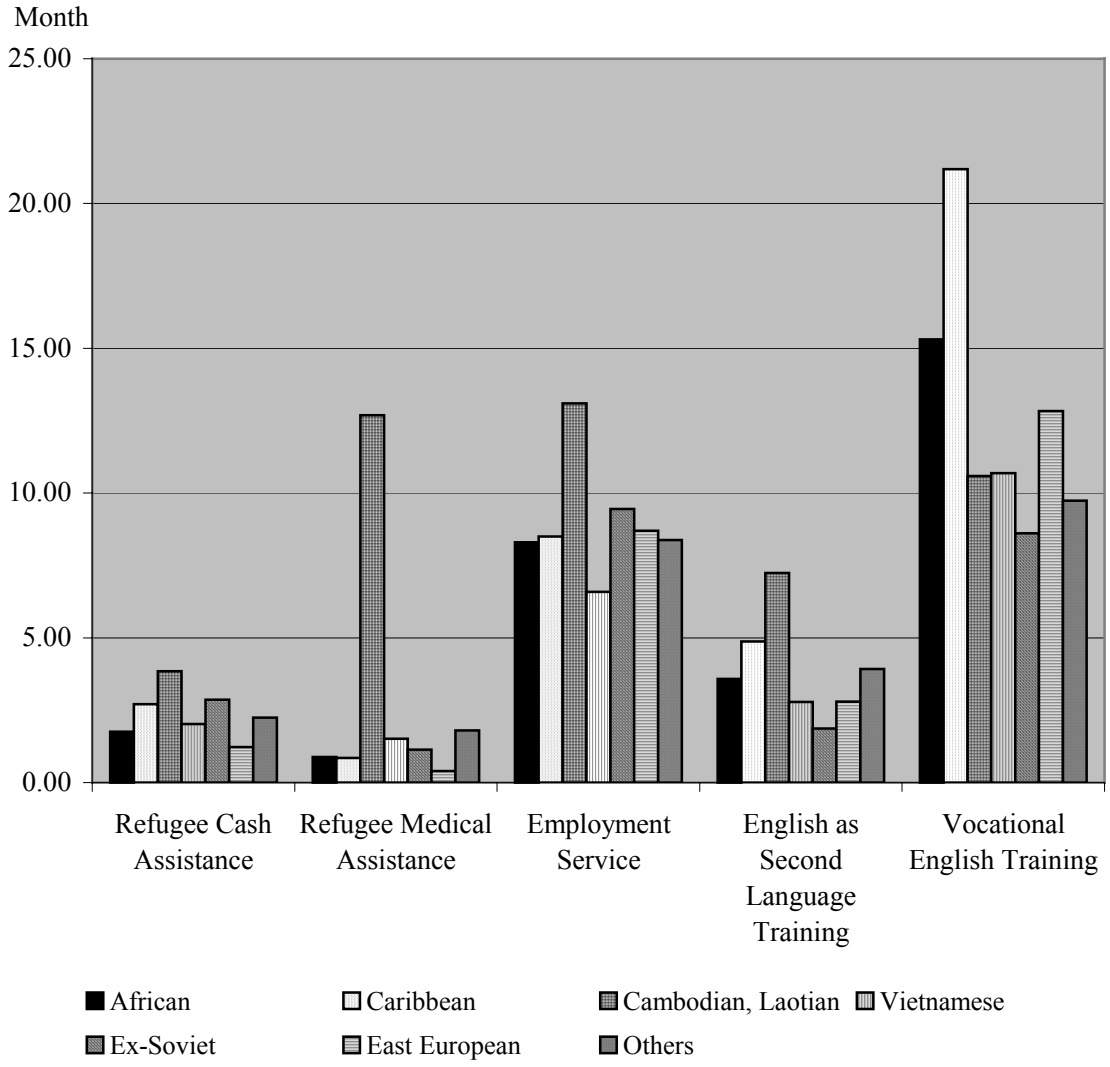

Figure 3 Trends of Refugee Program Participation by Arrival Cohorts, Controlling for Group Difference and Socioeconomic Characteristics (1980 Cohort as the Reference Group)

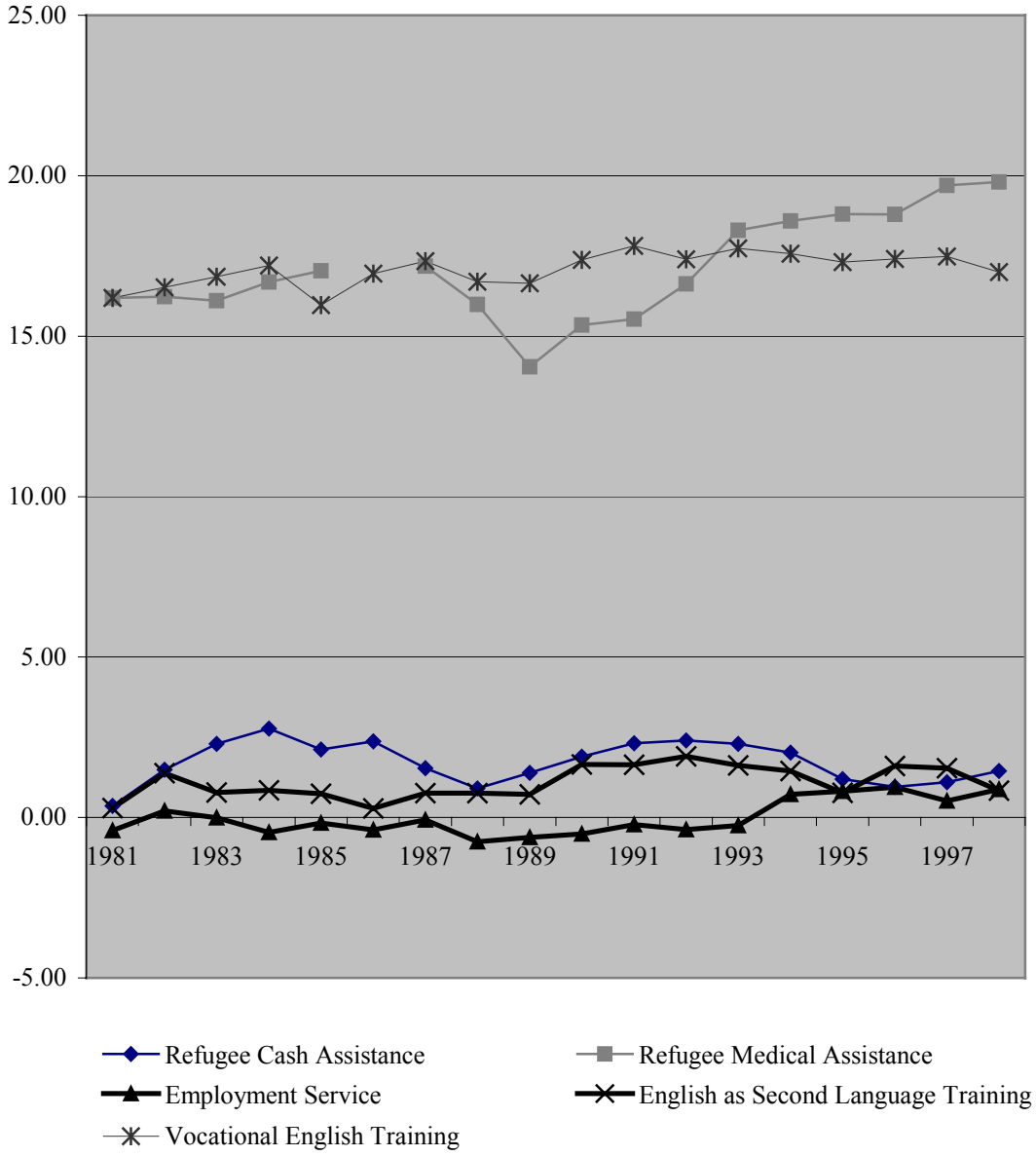

Figure 4 Group Difference in Refugee Program Participation, Cotrolling for Arrival Cohorts and Socioeconomic Characteristics
(Other as the Reference Group)

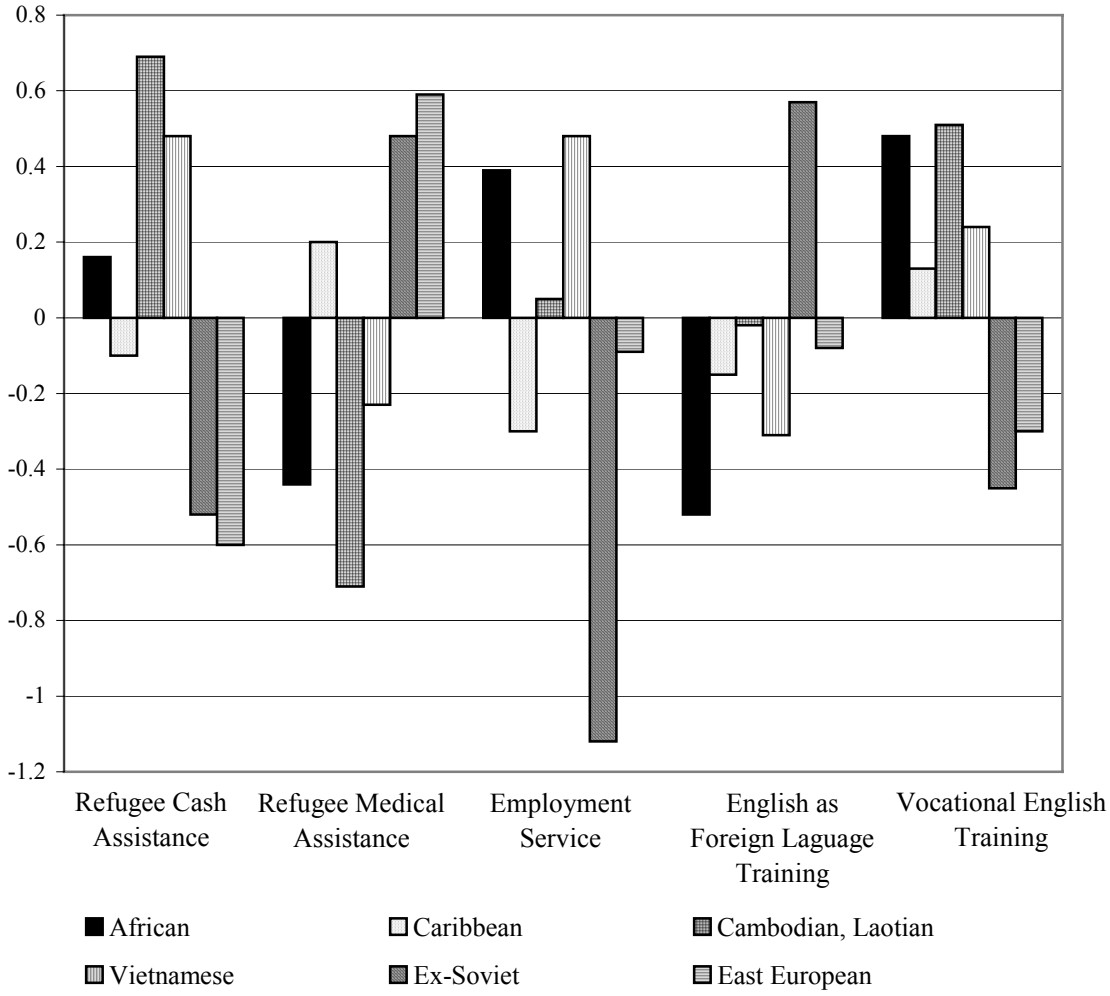

Figure 5.1 Group Difference in Immigrants' Welfare Program Participation
(Proportion)

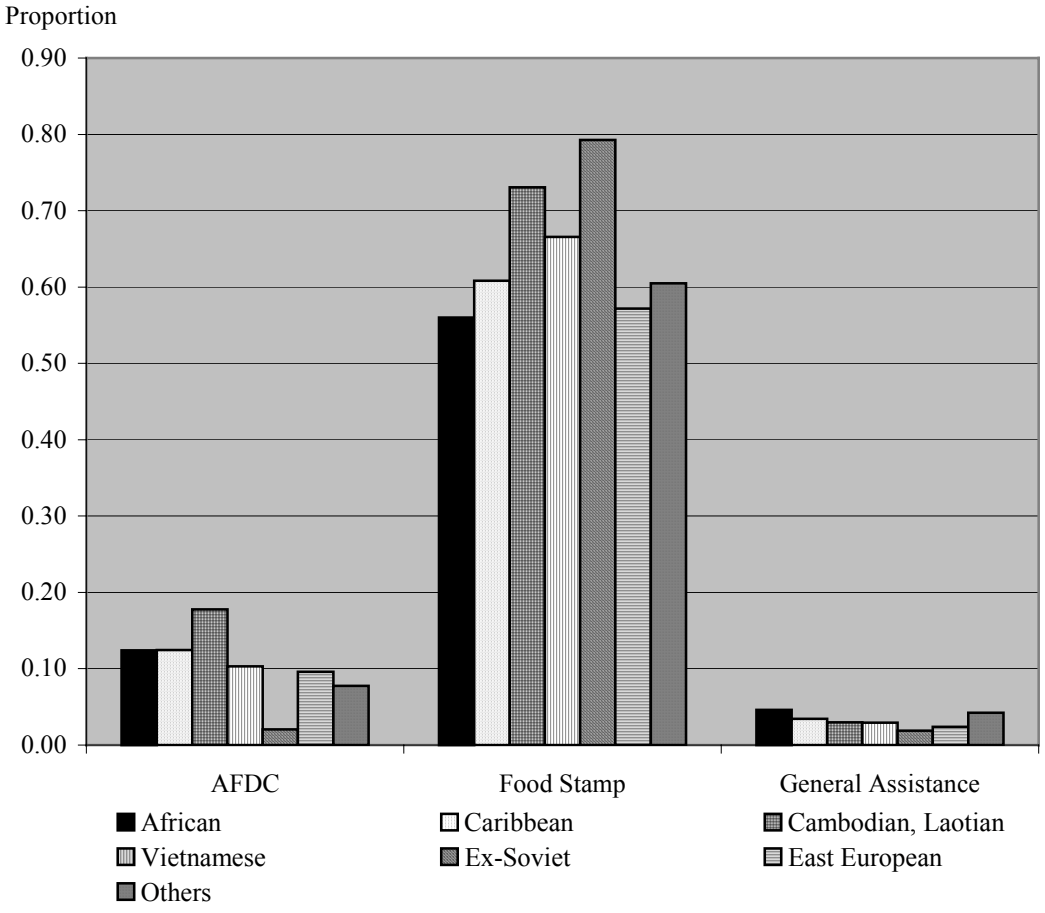

Figure 5.2 Group Difference in Immigrants' Welfare Program Participation (Duration)

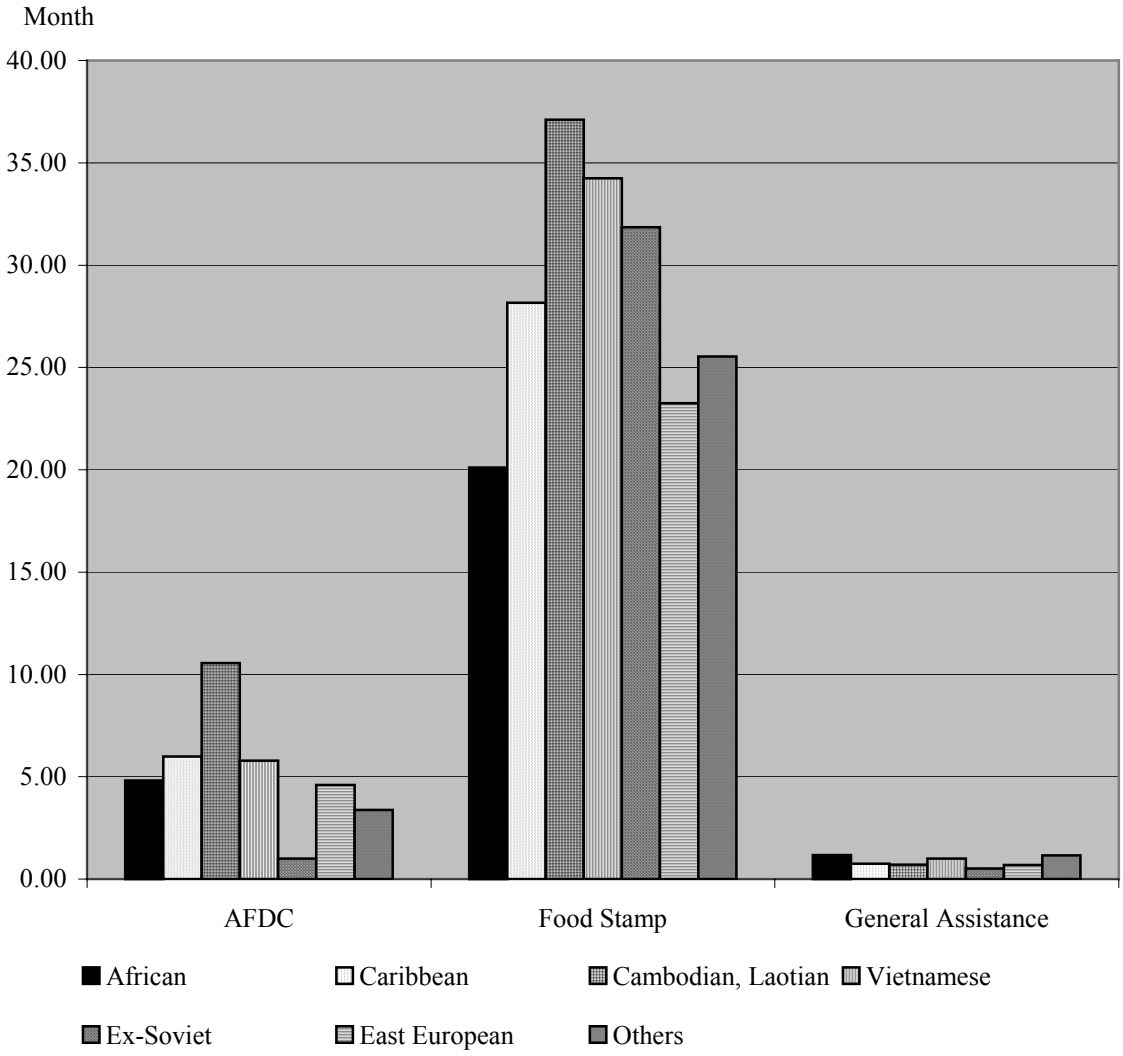

Figure 5.3 Group Difference in Immigrants' Welfare Program Participation
(Waiting Time)

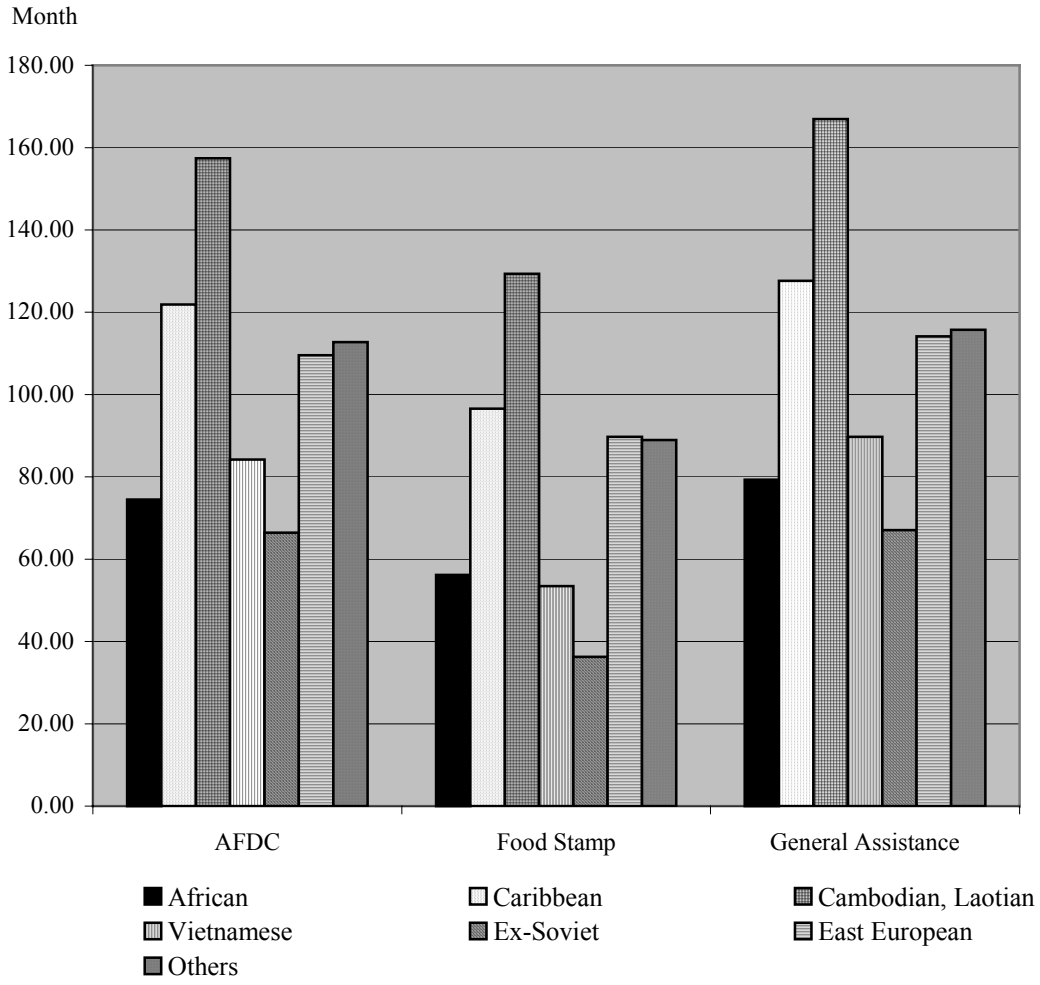

Figure 6 Group Difference in Immigrants' Welfare Program Participation, Controlling for Demographic Characteristics

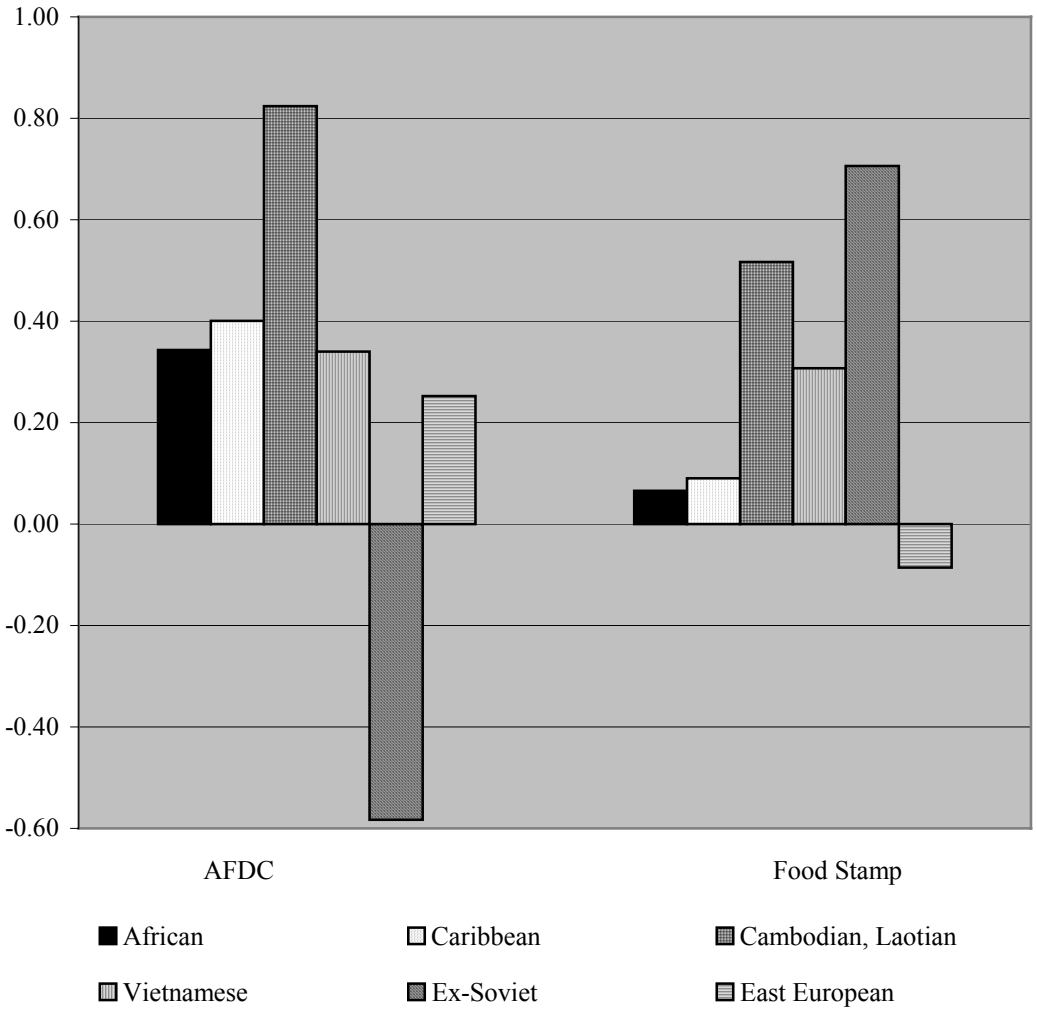

Figure 7 Group Difference in Refugees' Welfare Program Participation (proportion)

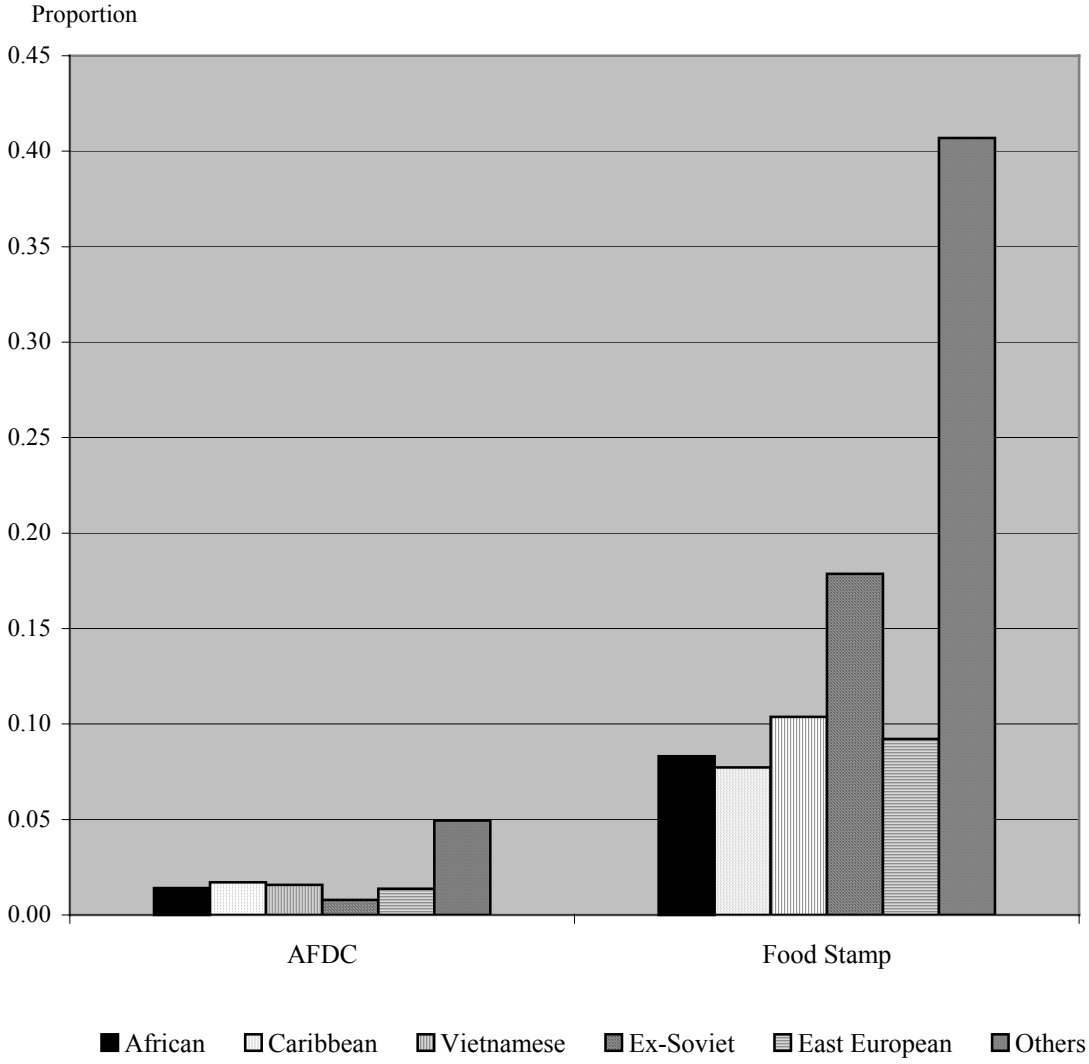

Figure 8 Group Difference in Refugees' Welfare Program Participation,
Controlling for Socioeconomic Characteristsics
(Other as the Reference Group)